Comment	0-11	Document	Paragraph in	
Number	Section	page number	page	Comment
1	N/A	N/A	N/A	The site is zoned for residential use, thus comparisons to Non-Residential criteria are insufficient. Please revise these occurrences throughout the report (particularly Section 4) and on the figures that only show exceedances of Non-Residential Direct Contact Soil Remediation Standards. Impact to Groundwater Soil Screening Levels should also be included as a screening reference for soil samples.
				EPA has previously requested that 1,4-dioxane be evaluated and reported as an SVOC, but the report refers to the VOC concentrations. The SVOC method for evaluating 1,4-dioxane is considered more
2	N/A	N/A	N/A	reliable and has significantly lower method detection limits than the VOC method. Additionally, the SVOC results are incorrectly reported as TICs and need to be incorporated into the results summary and delineation. Occurrences of 1,4-dioxane exceeding the Interim Groundwater Standards reported as TICs include (during various sampling dates) MW-1, MW-3, MW-6, MW-7, MW-14, MW-15, MW-16, MW-20, X-1, GW-TWP-7, and GW-TWP-9.
3	N/A	N/A	N/A	Statements comparing upstream concentrations in brooks to onsite ponds are misleading and should be deleted from the report. Besides being two completely different types of systems, upstream brook locations would be subjected to many different point and nonpoint sources of contamination than onsite ponds. Nor is there any hydrological connection between the ponds and brooks.
				It would be helpful to aide in the interpretation of the data in regards to nature and extent if sample logations presented in Appendix C were identified. It's understood that labeling might make the figures
4	N/A	N/A	N/A	"busy"; however, it would make it easier to cross reference the sample locations with the data in Appendix B.
				Impacts to federally-listed (threatened) species and their habitat from any remedial alternatives with error should be assessed during the Feasibility Study. We recommend continued
5	N/A	N/A	N/A	consultation with the USFWS.
				EPA had previously determined that the Wilderness Act may be an ARAR for the project, as the eastern half of the GSNWR was designated as a wilderness area by Congress in 1968. The potential for any
6	N/A	N/A	N/A	future remedial alternative to impact the federally-designated wilderness area portion of the GSNWR should be assessed during the FS.
				There are no wild and scenic rivers, coastal resources, coastal barriers, or significant agricultural lands in the vicinity of the site. The site does not lie within the designated coastal zone of the State of New
7	N/A	N/A	N/A	Jersey. Therefore, the Wild and Scenic Rivers Act, the Coastal Barrier Resource Act, and the familiand Protection Policy Act, and the Coastal Zone Management Act are not ARARs for this project.
8	N/A	N/A	N/A	We note that a previous document concerning the installation of monitoring wells at this site stated that no properties on the New Jersey or National Register of Historic Places were found in the vicinity of the proposed activities. In general the lack of known sites is not enough to preclude potential adverse effects to cultural resources protected under the tenets of the National Historic Preservation Act (NHPA). We recommend that if and once a ground disturbing remedy is likely, a Stage in Sultural Resource Survey should be completed, to determine if effects to historic resources are possible, and to ensure compliance with the NHPA.
				According to available GIS layers, much of the site is located within the 100-year floodplain as determined by the Federal Emergency Management Agency. Accordingly, we recommend that future documents include a delineation of the 100-year and 500-year floodplain. If any future remedial activities are proposed within either floodplain, a floodplain assessment will be needed. Please note that this assessment should include:  • a description of the proposed action; • the effects of the proposed action; • the effects of the proposed action as compared to the other options; and • measures to mitigate potential harm to the floodplain if there is no practicable alternative to locating in or affecting the floodplain, including measures to mitigate any potential impacts to the proposed remedial action from flooding events both during and after implementation of the proposed remedy.  This assessment will be needed to protect the remedy against the adverse effects of the 100-year and 500-year flood, including the spreading of contaminants and the long-term disabling of any needed remedial treatment systems.
9	N/A	N/A	N/A	
				The RI report notes that 202 acres of wetlands exist in the survey area, including 30.6 acres within the landfill. A review of National Wetlands Inventory GIS mapping indicates the site is nearly completely surrounded by wetlands. We wetlands are proposed to be impacted by future remedial activities, in addition to the completed delineation, a wetlands assessment will be needed. This assessment should include:  • an assessment of wetlands values and functions; • a characterization of flora and fauna; • a brief discussion of the impacts of any preferred remedial alternative as compared to the other options; • the effects of contaminants on wetlands resources; • measures to minimize potential adverse impacts that cannot be avoided; • replacement for wetlands losses (mitigation); and • a post-mitigation monitoring plan, if needed
10	N/A	N/A	N/A	
11	N/A	N/A	N/A	Section 6 - The fate and transport work might be better presented prior to the site conceptual model, and probably merits its own section earlier in the report.
				Section 7 - The surface soil delineation is difficult to follow. There are several contaminants that exceed ARARs at the perimeter of sample locations especially PCBs and benzo(a)pyrene. There is discussion about these being background conditions; it might be good to set a background range for these and show a figure that just shows what exceeds background. There is an instance of vanadium exceeding ARAR at the perimeter. The same is true for sediments (especially metals, PCB, pesticides and some SVOC), to a lesser extent surface water and groundwater (mainly metals for groundwater). In general the report seems heavier on characterization with delineation not as well presented or more difficult to understand due to the volume of data and the reliance on local background while background levels
12	N/A	N/A	N/A	are not directly accounted for in the box maps.

				There appear to be several table, figure and appendix references that are possible remnants from a previous version. There are also reference to the SCSR that appear as though they should be addressing
13	N/A	N/A	N/A	the RIR. Please review the document and make sure that all references are appropriate and correct for this report.
14	N/A	N/A	N/A	The report organization is hard to follow in some respects. For example, Appendix I seems to include only Phase 1 investigation results. It is recommended to include both phases.
				It is recommended that a section be added to discuss the screening criteria selected to evaluate environmental data for the RIR. The discussion should include explanations of the criteria for various
				environmental media (e.g. soil remediation standards - inhalation/direct contact vs. impact to groundwater, groundwater quality standards based the appropriate aquifer classification for the site, soil
15	N/A	N/A	N/A	vapor screening levels for vapor intrusion criteria).
	i			it would be good to have a table added that indicates which surface water and sediment samples were upstream brook samples, downstream brook samples, pond samples. What samples, if any, are in
16	N/A	N/A	N/A	neither category – such as samples collected in the wetlands. The brooks should be better labeled on the maps, especially Black Brook.
17	N/A	N/A	N/A	Use of the term "ubiquitous" when describing presence of metals in soil is too general. The description of which metals that were detected should be more specific.
	14//	1.47.	1,7/	It is very difficult to follow exceedances using report figures in Section 4 (box maps of all exceedances). Additional figures similar to those in Appendix C (presentation of what is below RDC, above RDC and
18	N/A	N/A	N/A	above NRDC in surface soil and sediment; one contaminant per map) would be helpful in evaluating the site contamination.
	N/A	IV/A	14/74	No deep groundwater samples were collected (or results were not presented) for vertical delineation of groundwater. Provide any deep groundwater data collected in the RI. A more thorough description
19	N/A	N/A	N/A	of the confining thick clay layer that is preventing downward migration of contamination should be included.
19	IN/A	IV/A	IV/A	or the comming thick clay rayer that is preventing downward migration or contamination should be included.
				Figure 4.5% Plane include hardward at 11 and an analysis of the second at 11 and an analysis of the se
				Figure 4-1's: Please include background soil locations and results on one of these figures.
				Figure 4-2: Please update to include the 1,4-dioxane results as an SVOC as reported in the TICs.
				Figure 4-3: It may be helpful to indicate a flow direction for the Black Creek and Loantaka Brosk, or include the table from the report text categorizing each location as upgradient or downgradient.
				Figure 4-4's: Aroclor is misspelled in the legends.
20	Figures	N/A	N/A	
				NJDEP does not accept baseline risk assessments to determine whether remediation wheeded on a site. The need for remediation or for addressing the soil and groundwater contamination for the
				ingestion-dermal pathway is based on complying with the Department's Soil Remisulation Standards and other media standards. The investigation's rationale, methodology and reports must conform to
				the Technical Requirements (NJAC 7:26E). This HHRA was reviewed, in accordance with standard EPA guidance, and uding EPA's Risk Assessment Guidance for Superfund, Vol. 1, 1989 (RAGS, but the
				Department does not require such an assessment. In terms of accepting the HHRA, the Department defers to EPA.
				While the actual risk assessment acceptability is deferred to EPA, remediation for this give must comply with Department policy and New Jersey statutes such that all contaminants present in
21	N/A	N/A	N/A	concentrations above one in a million cancer risk and above a HQ of 1 are addressed either by remediation or institutional/engineering controls.
	·	<u> </u>	<del> </del>	Appendix B Table B-3G: Please update to include Impact to Groundwater screening levels.
				Appendix B Table B-4B: 1,4-dioxane should not be reported as a 11% additionally, please include a row of "Total TICs" and compare to the NJDEP Interim Groundwater Quality Standards Appendix Table 2
				for Synthetic Organic Chemicals (http://www.state.nj.us/dep/wms/bears/Appericitx_Table 2:ntm).
				Appendix B Table B-4C: NJGWQC in this table should be updated its includes interim @ W@C to match the GWQC presented on the rest of the tables and figures.
22	Appendix B	N/A	N/A	Appendix b fable b 4c. Now year this table should be appeared a find a matrix of the fable by the fable should be appeared.
	Appendix B	IV/A	IV/A	Executive Summary: There does not appear to be a summary of the fate and transport of constituents of concern, the conceptual site model in the executive summary. It is recommended that the
23	N/A	N/A	N/A	executive summary include a discussion of each of the bullets noted in Section 1.3 Contents of the RIR.
24	ES	xix	1 1V/A	Are the inorganic concentrations found sonsistent with site-specific background?
		<del></del>	<del> </del>	Revise this paragraph to include a statistical evaluation of onsite results and background levels.
25	ES	xix ·	1	Revise this to read, "Although the shallow aquifer is identified by NDEP as a Class 2A potable aquifer, it is not currently used for as a drinking water."
26	ES	xix	1	
27	ES	xv	3	Please revise, 18 feet is not considered a relatively thin depth of fill material.
28	ES	χV	3	Include the ball field and the shooting range on Figure 1-2 and 1-3 for delineation of the site.
29	ES	χV	4	Consider including the acreage owned by the GSNW8 and the Green Village Fire Department (out of the approximately 170 acres total).
30	ES	xvi	1	The location of Blask Brook is not labeled an any of the Section 1 figures, please add labels for Black Brook.
				Please delete "National ogic input from direct precipitation" as precipitation would be an input to all water bodies. The ponds appear to at least be partially located on the landfill, not just north of it, please
31	ES	xvi	1	revise text according to
32	ES	xvi	1	Please explain why there is only a hydraulic connection between the large pond and groundwater.
33	ES	xvii	2	This paragraph states that the selected ARATS may change during remedy selection process. Please provide further discussion of potential changes.
34	ES	xviii	1	How was it determined that there were no landfill related impacts on the ball field and shooting range? Include a description of how this was determined.
35	ES	xviii	1	Include a discussion of constituents which pose risk due to potential migration to groundwater.
36	ES	xviii	2	A description of the direction of groundwater flow should be added. For example, under the third bullet point, what are the downgradient wells from MW-7?
37	ES	xx	1	Revise to read, "Although the Site is zoned residential and EPA is aware of no formal plans to change the zoning or restrict future land use, if the zoning of the Site"
				"Overall, carcinogenic excess lifetime cancer risks (ELCRs) and non-carcinogenic His presented in the BHHRA are based upon conservative assumptions that are intended to be protective of human health
38	ES	xx	2	by [add "likely" here] overestimating."
		<del>                                     </del>	t	"Here, multiple conservative assumptions were intentionally used to take the uncertainties into account." Revise to read, "Consistent with national guidance on conducting a risk assessment that protects
39	ES	xxi	1	for the reasonable maximum exposed (RME) individual in a population, parameters were selected that are not likely to underestimate risk."
40	ES	xxi	2	1st bullet: Revise this to include any risks above acceptable levels, as well as any risks associated with site-related contaminants.
40	ES	xxi	2	2nd bullet: What are the relevant ARARs for soil, surface water and sediment? Have they been determined?
42	ES	xxi	2	2nd bullet: What does "significantly" mean? Since unacceptable risks have been identified, ARARs have been triggered. Please clarify this to identify the extent of soils that exceed ARARs.
43	ES	xxi	2	4th bullet: Provide a more detailed description of the PAHs, pesticides and inorganics so that a clear understanding and context of what is found upgradient and/or downgradient is presented.
I	_		1	The RI states that all the elements of the RI and risk assessments are complete, but previously it was stated that some contamination is still being investigated (delineated). Please revise text accordingly to
		xxi	2	correct this discrepancy. It should also be stated (where appropriate) that ongoing groundwater evaluation will be presented in the final RI report or as an addendum.
44	ES	1		
44 45 46	ES ES	xxii xxii	1	Provide a more detailed description of the constituents so that a clear understanding of what is found upgradient and/or downgradient is presented.  The last bullet reads, "There is no unacceptable ecological risk, except there is." Please revise this to more accurately present the conclusions of the BERA.

47 1.2.1 1 3 The statement, "its rural character could be impacted if development occurs," is not relevant for RI purposes and should be removed.  48 1.2.1 2 1 This paragraph should note that several smaller ponds are present on the landfill, in addition to the larger ones cited.  49 1.2.1 2 3 Please include all business entities that are currently operating on the landfill property. There are empty dumpsters on the property, w 50 1.2.2 2 4 Figure 1-3 shows a tiny portion of the Site is owned by David M. Bakunas, trustee. This should be mentioned/explained. 51 1.2.2 2 5 Site Ownership section includes current ownership, it is typical to include the past ownership history.  The text states that USFWS purchased 310 acres of land for landfilling purposes. This statement should be verified and revised. The US.	
49 1.2.1 2 3 Please include all business entities that are currently operating on the landfill property. There are empty dumpsters on the property, w 50 1.2.2 2 4 Figure 1-3 shows a tiny portion of the Site is owned by David M. Bakunas, trustee. This should be mentioned/explained. 51 1.2.2 2 5 Site Ownership section includes current ownership; it is typical to include the past ownership history.	which do not appear to be owned by the landscaping husinesses.
50 1.2.2 2 4 Figure 1-3 shows a tiny portion of the Site is owned by David M. Bakunas, trustee. This should be mentioned/explained. 51 1.2.2 2 5 Site Ownership section includes current ownership; it is typical to include the past ownership history.	which do not appear to be owned by the landscaping husinesses.
50 1.2.2 2 4 Figure 1-3 shows a tiny portion of the Site is owned by David M. Bakunas, trustee. This should be mentioned/explained. 51 1.2.2 2 5 Site Ownership section includes current ownership; it is typical to include the past ownership history.	which do not appear to be owned by the landscaping pusinesses.
51 1.2.2 2 5 Site Ownership section includes current ownership; it is typical to include the past ownership history.	
	CA acquired true negation 1064 (Let 100 01 and Let 100 03). A partier
	sa acquired two parcels in 1964 (Lot 189.01 and Lot 189.02). A portion
	A 11 fa
53 2.2 7 6 Ten of the POIs had drums or drum remnants, not just three. Add a statement indicating why test pits/sampling were not conducted at	at all drum areas.
54 2.2.1 8 3 The wetland delineation was done in 2006. Both the US Army Corps of Engineers and NJDEP typically apply a five-year lifespan to delin	mantiana, an aita continual haccadarian mare bacca to ha un abandari
55 2.2.1 9 4 In what year(s) were the NJDEP permit equivalents approved?	neations, so site wetland boundaries may have to be re-checked.
The suspected origin of monitoring wells X-1 through X-7 should be discussed in this section, as their installation predates the formal R	Plactivities (according to Table 3-2, they were either installed in the
56 2.2.1 9 6 1990s prior to the major RI phases, or unknown).	a activities (according to rable 2-2, they were either instance in the
57 2.2.2 11 2 Where is the drum staging area located? Perhaps add to Figure 1-2.	
58 2.2.2 12 3 Explain why a 1-ft deep test pit was enough to delineate edge of landfilled materials.	
59 2.2.2 12 3 State why no soil samples were collected during POI-1 investigation. Describe how the POIs were eliminated from consideration.	
The report cites that 4-foot long steel macro-core samplers and acetate liners were used during direct such activities, but the logs in A	Attachment D refer to 5-foot intervals. The typical length is 5 feet, but
60 2.2.3 14 2 please double check and amend as needed.	, , , , , , , , , , , , , , , , , , ,
61 2.2.2 14 3 Where are results of post-ex sample from POI-17/18?	
62 2.2.4 16 3 Include a description of the regulated areas. Explain why sampling frequency was less in the regulated areas. Explain why no subsurfac	ce samples were collected in the regulated area.
63 2.2.4 16 4 Please review and clarify why no discussion of surface samples at POI-14 which had car battery casings were included? According to Fig.	
	<u> </u>
This is the first mention of Weston in the report. Please describe Weston's role in the sampling. The results of samples collected by We	eston do not appear to be included in RI. Was Weston the Site
64 2.2.4 16 5 Assessment Team mentioned earlier? Provide an explanation for soil samples collected at TP-09? There was potential industrial waste	• •
65 2.2.5 18 4 Add greater detail about how wells were developed.	
66 2.2.5 19 3 The sentence about purge rates is confusing, please revise and clasify this discussion.	
67 2.3 25 1 The fourth bullet at top of page refers to HC-1 as a monitoring well. HC-1 is not a monitoring well. This is the Hunt Club well that was h	hooked up to a spigot and was previously used for water supply.
The first paragraph indicates that soil sampling was performed to delineate constituents present at concentrations above the SRS. Plea	
contact/inhalation pathways. Were impact to groundwater values considered in developing the screening criteria for evaluating enviro	onmental contamination in the RIR? Delineation for Impact to
68 2.3.1 25 7 Groundwater screening levels (TBC) should be included.	·
This paragraph refers to soil samples SS-128, through SS-165 through SS-183 and SS-187 through SS-191. Several were consider	red sediment, it would be helpful to note that here, since they are
69 2.3.1 26 1 missing from the soil tables.	
70 2.3.1 26 4 Note that the soil samples collected in association with the temporary wells were collected 11 months after the temporary wells were	e installed and sampled. The text should be revised to state this.
71 2.3.2 27 2 Some samples in the range SD-45 through \$0.60 were considered soil; please cite as these samples are not on the sediment tables.	
72 2.3.2 27 3 This paragraph states that "composite" sample was collected; homogenized would be a more accurate term. Please revise the text acc	ccordingly.
73 2.3.4 28 6 Please advise if the nine temporary quality have been abandoned/removed.	
Note that pore water samples were collected in place of MW-13 which could not be installed. Also, the porewater samples were inside	le the site boundary; proposed well was to be outside the site
74 2.3.5 29 1 boundary. Please clarify this in the text.	
75 2.3.6 30 4 Specify parameter's for filtered samples	
76 2.3.7 31 1 PW-1 was inside landfull soundary. Sampling procedure was to purge with peristaltic pump and sample with bailer. Please revise the	text to include this information.
77 3.1 32 1 This references Section 2 4 Sthere is no such section, it appears as though it should be 2.2.4, please confirm and revise the text.	
The text states that total excavation depths ranged from 1 to 18 feet. Does this refer to the depth of the excavations during the test pit	it investigation or depth of fill material encountered in the test pits.
78 3.1 32 2 Please clarify in the text.	
Several perimeter test pits had trash, several only went 1 ft. TP-10 was perimeter and clean, but only went 1 ft. Some edge areas lack	ca test pit. This may not be sufficient to delineate edges for the
79 3.1 32 3 purposes of the feasibility study or later design efforts. Please revise the text to provide this consideration.	
80 3.1 33 1 The west facing transect discussion for TP-10 is unclear. Please review and clarify the text.	
81 3.1 33 1 Reference to Section 2.2.1.3 is incorrect. Seems to refer to 2.2.2, but this section does not include discussions of TP-10, as suggested he	
The landfill is very large, and there are probably non-landfilled spots in many areas. This section of the Site wasn't particularly well del	elineated and it is small in size and it should be included in the landfill
82 3.1 34 1 boundary.	
83 3.1 34 2 References to 2.4.2 – should be 2.2.4.	
Recommend that the discussion of the glacial sediments above the glacial lake clay unit be discussed in more detail as this is the key w	
by the Site. In particular, the characteristics of the sand units (e.g. thickness, aerial extent, continuity of beds) are important to a discuss	ussion of the transport of contaminants and development of the
84 3.3 37 4 conceptual site model.	
85 3.4.1 38 4 Include a discussion of the NJDEP classification of the aquifer that requires it be protected as a Class 2A potable aquifer.	
This section notes that completed monitoring well depths in the shallow subsurface aquifer range in depth from 9.0-14.5 feet. Based o	
86 3.4.2.1 39 1 well screen depth (not completion depth) for MW-1 through MW-20. If wells X-1 through X-7 are meant to be included in this summar	ary, the numbers should be adjusted altogether.

		,		
				As with the discussion of local geology, the discussion of local hydrostratigraphic units should discuss details of the water-bearing units (silt, sand and clay). What is the saturated thickness, how do they
				relate to hydraulic conductivity estimates in support of future flux calculations. It is also recommended that the cross sections be extended to include the streams that are concluded to be local discharge
87	3.4.2.1	39	2	points, and that consistent scales be used for all of the cross sections so that they are more easily compared.
88	3.4.2.2	40	2	The next to last sentence states that "Depths to water below groundwater surface in the wells". Should this say "Depths to water below ground surface in the wells"?
89	3.4.2.2	41	2	Please include a brief description of surface water depths, or include in Section 3.5.1
				Please present the equation (if hydraulic conductivity was calculated) or the graphs used (if graphical method was used) along with a discussion of how the method was used: the assumptions (e.g.
				saturated/aquifer thickness), conversion factors (e.g. gpd/ft to ft2/day) and limitations of the method used. Table 1 from Attachment G appears to be an important summary of many of these factors.
				Perhaps it would help to make the table part of the RIR tables included in the body of the report as it would help the reader understand which wells were used and what the range in conductivity is for
90	3.4.2.3	42	1	each well.
91	3.4.2.3	42	2	The "Darcy groundwater velocity" is not the same as average linear velocity. It is actually a flux that does not include porosity in its calculation. Recommend changing the term used in this sentence.
				Based on the range in clay thickness from literature and the observed well depth, it is possible that well HC-1 was completed in fractured rock. Water supply wells completed in rock typically have open
92	3.4.2.4	43	2	hole construction. HC-1 appears to be a bedrock open hole well based upon the video inspection. Please confirm and revise the text accordingly.
				The term "Other" in the wetland table on page 50 might be clarified to say "Phragmites on landfill". If the three ponds (total 8.3 acres) are shallower than 2 meters, they would be considered "palustrine
93	3.6.3	50	2	open water" wetlands and may be added to the wetland table.
94	3.7.1	53	3	The table on page 53 identifies this as "formerly listed", but this language suggests that the bog twitte is currently listed. Please revise to clearly identify the status.
95	4.1.1	57	1	Dozens of old telephone hand sets are present in one area of the landfill (west of MW-7 or MW-6)
				The text states that the landfill has been subjected to unauthorized waste disposal. Has this been documented and confirmed?
96	4.1.2	58	2	Please provide example(s).
97	4.1.2	58	2	Describe or document evidence of skeet shooting over the ponds as opposed to the shooting range? Is this a significant source of contamination? How was this determined?
				The discussion about industrial waste at test pit location TP-09 and the significance of mephenesin at the location is confusing. It is concluded that the waste may be industrial due to "visual observations"
				(please clarify) and high levels of some contaminants (later described as PCBs and VOCs), however, there is a lengthy discussion on why the presence of mephenesin does not indicate industrial waste. This
				is contradictory. It was unclear that the "dark clay" sample collected was waste, not soil, which would require further delineation. Clarify that, although mephenesin was detected at TP-9, it was not a
98	4.2.1	60	2	reason to characterize the location as industrial waste. This entire discussion should be reviewed and clarified.
				This section over emphasizes that mephenesin is a TIC and that concentrations were estimated, casting doubt on whether it is really present. Mephenesin was a TIC because it is not a calibrated compound
				in the analysis, and the concentration is estimated for the same reason (it is not a matter of "furthermore the concentration was estimated", as stated in the text). Its concentration was high enough to
				require sample dilution, raising the reporting limit for calibrated compounds. Mephenesin was also found in groundwater in the same area, so whether it is mephenesin or something else, some compound
99	4.2.1	60	2	is there and the discussion should be revised as noted above.
100	4.2.2	62	1	Discuss why no soil samples were collected near POI-1. Post exceptation soil samples were collected at POI-17 and POI-18; where are the results provided?
				The information in these bullets should be more exact. Identify the number of drum samples that were analyzed and in which PCBs were detected; identify the number of samples in which pesticides were
101	4.2.2	62	3	detected; and the last bullet should be revised to contain significantly more information - why is antimony in one sample the only inorganic that is discussed?
102	4.3	63	2	State why was it necessary to reanalyze metals in soil
103	4.3	63	3	Where text reads "A comparison to Residential and Non-Residential SRSs is presented in Appendices A-3A and A-3B.", that should be Appendices B-3A and B-3B. Please review and revise the text.
104	4.3	63	3	Regardless of the anticipated future use of the site, it is zoned for residential use and needs to be evaluated as such.
105	4.3.1.1	64	2	Earlier in the RI, it said that three of the locations were not sampled for soil. Please verify.
106	4.3.1.1	64	2	PCB congeners, dioxin, furans were not included in Appendix I for reference areas. Please review and revise the text accordingly.
107	4.3.1.1	64	3	Revise this to read, "are less that or within the acceptable risk range for residential soil (4.6E-06 ng/kg - 4.6E-04 ng/kg)"
108	4.3.1.2	65	1	Revise this to read, ", ***** less than or within the **ecceptable risk range for residential soil (4.6E-06 ng/kg - 4.6E-04 ng/kg)"
				The data used for the statistical evaluation is not contained in the RI report; it is in the SCSR. The RI should clearly indicate what data sets were used and provide a description of how the statistical analysis
				was performed what data was used and weethe rationale for how the evaluation was conducted.
109	4.3.1.3	65	3	
				This section discusses the results of soil sampling at an onsite shooting range north of the landfill. Samples from this area were not elevated in lead. Later it is speculated that an offsite shooting range could
				have contributed lead to offsite soils west of the landfill. The report should be clear as to which shooting range is being discussed and why it is concluded that one may have contributed lead to soil when
				The contributed to a state and the report should be clear as a which should
110	4.3.2.2	66	5	another does not appear to have
110	4.3.2.2	66	5	
110 111	4.3.2.2 4.3.2.3	66 67	5	another does not appear to have:
				another does not appear to have.  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was
				another does not appear to have.  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".
111	4.3.2.3	67	2	another does not appear to have.  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please
111	4.3.2.3 4.3.2.3	67 67	2	another does not appear to have  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please review and revise accordingly.  TEQ for dioxin does not match that listed in Attachment J.
111	4.3.2.3 4.3.2.3	67 67	2	another does not appear to have  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please review and revise accordingly.  TEQ for dioxin does not match that listed in Attachment J.  Please correct discrepancies in the following parts of the document: References Attachment I (presumably Table 25) – Attachment I only includes Stage 1 and Stage 2 samples (through 2010). Attachment J
111	4.3.2.3 4.3.2.3	67 67	2	another does not appear to have
111	4.3.2.3 4.3.2.3	67 67	2	another does not appear to have
111 112 113	4.3.2.3 4.3.2.3 4.3.2.3	67 67 68	2 6 2	another does not appear to have  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please review and revise accordingly.  TEQ for dioxin does not match that listed in Attachment J.  Please correct discrepancies in the following parts of the document: References Attachment I (presumably Table 25) – Attachment I only includes Stage 1 and Stage 2 samples (through 2010). Attachment I references a total of 123 sample locations for landfill, Landscape Area 1 and Landscape Area 2/Hunt Club. This page of the RI references 122 locations. Largest N on Attachment 1 (table 25) is 121. Tables 23 and 24 summarize samples from the Landscape Areas/Hunt Club separately – are they excluded from Table 25? Number of locations, and what is included in each table/discussion is confusing. Please
111 112 113	4.3.2.3 4.3.2.3 4.3.2.3	67 67 68	2 6 2	another does not appear to have  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please review and revise accordingly.  TEQ for dioxin does not match that listed in Attachment J.  Please correct discrepancies in the following parts of the document: References Attachment I (presumably Table 25) – Attachment I only includes Stage 1 and Stage 2 samples (through 2010). Attachment I references a total of 123 sample locations for landfill, Landscape Area 1 and Landscape Area 2/Hunt Club. This page of the RI references 122 locations. Largest N on Attachment 1 (table 25) is 121. Tables 23 and 24 summarize samples from the Landscape Areas/Hunt Club separately – are they excluded from Table 25? Number of locations, and what is included in each table/discussion is confusing. Please review and revise for clarity.
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111 112 113	4.3.2.3 4.3.2.3 4.3.2.3	67 67 68	2 6 2	another does not appear to have.  The statement is made that certain VOCs were detected in low concentrations at isolated samples and were limited to BTEX compounds. Ethylbenzene and xylene were the only BTEX compounds; EB was found in 3 of 10 samples, xylene in 4 of 10 samples. Those do not appear "isolated". Please remove the word "isolated".  Include 4,4-DDE and heptachlor epoxide among list of most commonly detected pesticides; only gamma chlordane and alpha chlordane was detected in all 10 samples – text suggests otherwise. Please review and revise accordingly.  TEQ for dioxin does not match that listed in Attachment J.  Please correct discrepancies in the following parts of the document: References Attachment I (presumably Table 25) – Attachment I only includes Stage 1 and Stage 2 samples (through 2010). Attachment I references a total of 123 sample locations for landfill, Landscape Area 1 and Landscape Area 2/Hunt Club. This page of the RI references 122 locations. Largest N on Attachment 1 (table 25) is 121. Tables 23 and 24 summarize samples from the Landscape Areas/Hunt Club separately – are they excluded from Table 25? Number of locations, and what is included in each table/discussion is confusing. Please review and revise for clarity.  "The baseball field and shooting range were excluded from this data summary because they are located outside the landfill boundary." Please rephrase this statement to reflect that the field and range are outside of historically landfilled areas, because current phrasing makes it seem like they are being excluded from the Site definition.

117	4.3.3	72	T 5	It is not necessary to include the chemical names and historic uses of chlordane, dieldrin, alpha-BHC, and 4,4'-DDD.
118	4.3.3	73	1 1	Please consider whether a statement can be made on likelihood of point source for inorganics and PCBs, similar to what was said about other contaminants, and revise the text accordingly.
119	4,4	75	2	Appendix reference should be 8-3A and 8-3B, which covers TCL/TAL and congeners.
120	4.5	76	table	There are other exceedances; it is recommended to add a comprehensive table.
121	4.5.2	78	1	States that sample depths ranged from 9 to 19 feet bgs; a sample was collected 24.5-25' deep at SS-177. Please review and revise accordingly.
122	4.5.1.5	78	2	Please note the typographical error
122	7.3.1.3	1 78		"The sample depths ranged from approximately 9 to 19 feet [add "below"] grade, with
				the shallow sample at each boring representing soil immediately below the landfill waste
122	4.5.2	78	4	and the deep sample representing soil immediately above the regional clay unit."
123	4.5.2 4.5.3	78		Appendix table B-3B does not show the non-cancer USEPA RSL and does not distinguish which samples exceeded the non-cancer risk from which only exceed the cancer risk RSL.
124			6	
125	4.6	79	2	Please add that the groundwater beneath the site is classified as a Class IIA aquifer "results are compared to GWQS for Class IIA aquifers"
425		70		The second paragraph indicates that the July 22, 2010 version of NJDEP GWQS were used. Please indicate if these are the values in effect when the RIR is released. For example, it appears that the interim
126	4.6	79	3	criteria for 1,4-dioxane is not the most current value.
127	4.6.1.1	79	6	Change interim specific GWQS of 1,4-dioxane to 0.4 ppb.
128	4.6.1.1	80	1	Remove SVOC/pesticide discussion – this paragraph and the next are about VOC.
				The last paragraph cites published data for metals in groundwater to state that metals in groundwater at the Site warrant no further inquiry because site concentrations are similar to background. Text
				specifically cites aluminum, arsenic, iron and manganese but no published reference is provided for aluminum. Maximum iron and manganese concentrations at the site (Appendix I) are much higher than
129	4.6.1.1	80	5	the cited background ranges. These factors as presented do not seem to support that no further inquiry into metals in groundwater is necessary.
				These paragraphs discuss TICs in groundwater; no discussion of estimated concentrations, whether they exceeded generic groundwater criteria (carcinogenic/noncarcinogenic) or why further study is or
130	4.6.1.1	81	2	isn't warranted. This discussion should be added to the report.
131	4.6.1.1	81	3	It is not necessary to include the use history of glutethimide (pg 81).
132	4.6.1.2	81	6	Figure 2-6 should shows locations of all temporary and permanent wells; and should also show pore water location PW-01 rather than solely discussing it in the text.
133	4.6.2.2	83	2	third, fourth, fifth, sixth, seventh bullets - Table 4B-A does not highlight these SVOC exceedances; for TWP-6 benz(a) pyrene equals, does not exceed standard.
				In some cases filtered metals concentrations are similar to unfiltered concentrations. Arsenic, iron, manganese and sodium in MW-3 for example. Not all cases of metals exceedances seems to be related
				to colloids – especially iron and manganese. List of metals exceedances leaves out some that exceed in temporary well points, e.g. chromium, cobalt, copper (and cyanide). The idea that metals
134	4.6.1.2	84	1	concentrations are due to colloids is not necessarily supported, this paragraph should be revised accordingly.
				This discusses TICs in groundwater, stating that their presence is not confirmed because they were detected in only one of two sampling events in 2015 and concentrations were low. However, they were
				detected in the previous phase. In addition, TIC concentrations are estimated, and results from a calibrated analysis could be very different than TIC concentrations. TICs should be evaluated further with
				reference to interim generic groundwater quality criteria to see of they warrant calibrated analysis. NJDEP has interim generic standards and interim specific standards for synthetic organic compounds
				(SOC) in groundwater, of which mephenesin is one. These apply to compound swithout their own standard. For noncarcinogens, the standard is 100 ug/L per individual compound and 500 ug/L total. For
				carcinogens 5 ug/L per individual and 25 ug/L total. Thus, this applies to TIC mephenesin, found at GW-TWP-8 (430-560 ug/L -estimated), and in a waste sample from TP-09, and possibly other TICs
				identified. Please review this material and include a discussion in the revised document.
				In the case of 1,4-Dioxane, please incorporate the TIC results from the SWOC analyses into the evaluation of this compound. Because 1,4-Dioxane performs much better in SVOC analysis than in VOC
				analysis, the SVOC results would provide a more stherough understanding of the distribution of this compound. In addition, targeted VOC results for 1,4-Dioxane are available for some samples. These
				could be used to advantage if a correlation can be established between calibrated (VOC) results and TIC (SVOC) results. The correlation could then be used to guide interpretation of the TIC concentration
				could be used to advantage in a contention with the established between calibrated (VOC) results. The contention could then be used to guide interpretation of the reconcern adort
405	4640			
135	4.6.1.2	84	4	
				This section considers four overall areas of ecoundwater impact (southwestern benzene and 1,4-dioxane at MW-3; northwestern Freon compounds at MW-10, 18, and some TWP locations; PCBs at MW-7, and benzene at MW-10. The full price of the sold and the sold at the little sold and the sold at the little sold at the little sold at the
		1		and benzene at MW 191. The following additional areas also show localized groundwater impact and should be added to the list:
		1		GW-TWP-1 through GW-TWP-4 in the northwest: In addition to CFCs at TWP-1 and 2, TWP-2 through 4 have various pesticides, TWP-1, 3, and 4 have PAHs, TWP-3 and 4 have PCBs.
				MW-6 and 7 have 1,4-dioxane (reported as an SVOC TIC) at both locations in 2015 in addition to prior detections as an SVOC at both in 2008. The samples between 2008 and 2015 for VOCs reported
				high detection limits of 100ppp
136	4.6.3	85	3	
137	4.6.3	85	4	Include a discussion of the 1,4-dioxane, similar to what's presented for benzene.
138	4.6.4	85	4	Include a discussion of how the concentrations have or haven't changed over the sampling events.
139	4.6.5	85	4	Were these detected in filtered or unfiltered samples?
				This suggests that the contamination isn't a significant concern. However, if the extent hasn't been defined, it is not known if the MW has characterized the worst of any contamination that may be
140	4.6.6	85	4	present. Revise to read, "The extent of benzene has not been defined; the benzene result only marginally exceeds the applicable standard.
141	4.6.3	85	4	Benzene exceedance at MW-10 is not discussed. PCB exceedance at TWP-4 not discussed. SVOC and pesticide exceedances not discussed. Please revise to include all exceedances.
		1		Bullet 1: Please remove assumption that natural attenuation processes may be degrading benzene at MW-3. This discussion belongs later in the report, not in the presentation of results.
				Bullet 2: Please mention the recent porewater delineation activities for CFCs near MW-10/18.
				Bullet 3: The second sentence of this bullet is misleading. The nearby (offsite) downgradient wells from MW-7 (in the middle of the landfill) are nearly 1,000 feet away. Suggest rephrasing to maintain
				that PCBs aren't present in the downgradient offsite wells, but remove that they are nearby.
		1		Bullet 4: Please mention the recent porewater delineation activities for benzene near MW-19.
			1	
142	4.6.3	85	4	Builet 4. Please Trention the recent porewater defineation activities for benzene flear MW-15.
142 143	4.6.3 4.6.3	85 85	4	Bullet 2: 2nd sentence - typo

145	4.6.3	86	1	As noted above, dismissal of metals in groundwater as being due to ambient conditions and/or colloids is not well supported and should be reviewed and revised.
146	4.6.3	86	2	Bullet 3: Please amend to include MW-10 in the porewater delineation areas.
147	4.8	87	2	Figure 4-3 shows exceedances of NJDEP criteria but not of USEPA criteria. Consider adding a second figure as showing both criteria's' exceedances is too much for one figure.
	1,0		-	Here, the Federal ARARs of EPA National Ambient Water Quality Criteria (NAWQC) are referenced, but NRWQC (National Recommended Water Quality Criteria) are used on the Table B-6's. Please
148	4.8	87	2	reconcile this discrepancy.
140	7.0	87		There are a number of instances where the semi-quantitative analysis indicated that specific contaminants were elevated compared to background, but the results were not discussed in the text. The text
149	4.8	87	3	should be revised to explain why these results were not included, for instance, is it because the concentrations of these contaminants were below ARAR's?
150	4.8.1.1.1	88	3	Indeno(1,2,3-cd)pyrene exceedance of ARARs is noted in this section and on Table B-6A (SW-7, 2/25/08), but not included on Figure 4-3.
151	4.8.1.1.2	89		Identify which five samples are the downstream Loantake Brooke samples. It's difficult to follow the figure/text without that.
	4.8.1.1.2	90	6	Identify the ten downstream samples for Black Brook.
152	4.8.1.2.2	90	6	
450	4040			Based on upstream data, the concentrations of barium, cadmium, copper nickel and zinc found downstream in Black Brook may indicate landfill impact; however, report suggests otherwise for these
153	4.8.1.2	92	1	contaminants based on their statistical analysis. See review of statistical analysis.
154	4.8.1.3	92	1	Since the brooks don't feed into the ponds (as per Section 3.5.1.1), comparisons of constituents in the ponds to the brooks should be omitted.
				This states that benzene, TCE and VC were found in ponds at similar concentrations collected in the brooks upstream of the site; the Figure 4-3 shows no exceedances of these compounds upstream of the
155	4.8.1.3	92	2	site. These VOCs are not listed in the upstream summary for the brooks in Attachment I. Seems contradictory; see review of statistical analysis.
				Statements comparing upstream concentrations in brooks to onsite ponds are misleading and should be deleted from the report. There might be some validity when comparing inorganics due to regional
				geology, but when discussing chemicals such as VOCs and SVOCs it is without merit. Besides being two completely different systems, upstream brook locations would be subjected to many different
156	4.8.1.3	92	3	potential sources of contamination than onsite ponds. Nor is there any hydrological connection between the ponds and brooks.
				This states bis(2-ethylhexyl)phthalate concentration in ponds is similar to upstream of landfill, but there are exceedances in pond, none shown upstream on Figure 4-3. This compound is not listed in the
157	4.8.1.3	92	3	upstream summary for the brooks in Attachment 1. See review of statistical analysis.
158	4.8.1.3	92	5	This states that dissolved manganese appears elevated relative to upstream conditions. Based on Appendix I, total and dissolved manganese appear similar to each other, and to upstream conditions.
159	4.8.3	93	4	In describing the ARAR exceedances in the large ponds, VOC exceedances from the first phase of investigation were omitted (benzene, TCE, vinyl chloride at SW-3). Please update.
160	4.8.2	94	1	SW-SW-44 (not SW-44) is located near the northwestern edge of the landfill not the northwestern, as stated).
161	4.8.3	94	5	This paragraph omits VOC exceedances in ponds. Please revise.
162	4.8.3	95	1	As stated in previous comment, manganese concentrations in ponds may not suggest landfill impact based on Appendix I.
		<b>†</b>		It would be helpful to note somewhere which sediment samples are considered to be upstream of the landfill considering the radial nature of groundwater and (presumably) wetland flow as indicated on
163	4.9	95	3	Figure 3-5 through 3-7 (especially in the northwest corner of the site)
164	4.9	95	5	The reference for BTVs should be Table B-7D, not B-7C.
165	4.9	95	5	If the three ponds are hydrologically isolated from Loantaka and Black Brooks, then the three th
		1		The presumption that "Aroclor-1254 may occur in upstream sediment at concentrations greater than those observed downstream" because of reporting limits above screening standards should be
				removed. There are various locations and media that have reporting limits greater than screening limits/promulgated standards, and these conjectures aren't made elsewhere. PCBs are a potential
166	4.9.1.2.2	99	3	concern at the landfill. To properly address this hypothesis, the reports should present the upstream MDLs.
167	4.9.1.3	100	4	Since the brooks don't feed into the position (as per Section 3.5.1.1), comparisons of constituents in the ponds to the brooks should be omitted.
107	4.5.1.5	100		The statement is made attributing PAH contamination in the West pond to clay pigeons from the shooting range further to the
				west. Has the presence of clay pigeons been confirmed in the point or along its western banks to justify this statement? Is it even possible intact pigeons can travel that far, let alone fragments of ones that
460	4.9.1.3	100	5	
168	4.9.1.3	100	5	were shot? Please provide evidence to support such statements, and if not, delete from the text here and elsewhere throughout the document.
				The comparison of Arcslor-1254 concentrations in the large pond (SD-2) to "upstream Loantaka Brook" is not a valid comparison and should be deleted from the report. The brook doesn't feed into the
				pond. Additionally, the flow contour maps and the wetland nature of the area north of the large pond), the "upstream Loantaka Brook" locations (SD-65 and SD-69?) with Aroclor-1254 is not upstream,
				and is hydrologically downgradient of the landfill. No PCBs were detected in the true "upstream" locations. As requested in the surface water section, please include a list of the "upstream" versus
169	4.9.1.3	101	1	"downstream" sediment sampling location. Berhaps the PCBs detected in the pond are attributed to the landfill since the sample SD-2 was collected near an outfall ditch coming from the landfill.
170	4.9.1.3	101	6	Provide evidence/documentation of skeet spoting over the ponds or delete reference, see previous comment.
				The text states that PCB congeners were defected in only five locations. Since Aroclors were detected in many more locations, PCBs congeners would be expected to occur, at a minimum, in as many.
171	4.9.2	102	3	Additional text should be included to state they were analyzed in only a fraction of samples submitted for PCB Aroclors.
				The entire section on sediment compares values detected to ecological-based screening benchmarks except here where it is compared to RSLs. For consistency, the discussion on dioxin should focus on
172	4.9.2	102	4	comparison to ecological criteria as what was done elsewhere.
				Table 2-1 Points of Interest description for POI-14 states "pile of car battery casings". The fact that lead at SS-169 and SS-170 was at lower concentration than at SS-144 does not preclude that this area was
173	4.9.2	103	1	impacted by the landfill. More data would be necessary to rule out the landfill as a source of lead at SS-169, SS-170, SS-171, and/or confirm off-site shooting range as source.
174	4.9.3	103	2	PCBs were omitted from the list of constituents exceeding EBSLs in the Loantaka Brook downstream of the landfill.
				This paragraph inaccurately states that PCBs were not found in Black Brook samples downstream of the landfill (see SD-37,SD-59, SD-173, SD-56 among many others). Please remove the statement about
175	4.9.3	103	3	uncertainty regarding upstream concentrations because of detection limits, or add those uncertainties to other evaluations throughout the report.
176	4.9.3	103	4	Please see previous comments regarding upstream versus downstream PCB conclusions.
				Please explain how concentrations of VOCs, SVOCs, and pesticides found in upstream locations in Loantaka and Black Brooks can be used to put into context regional sediment quality, for a comparison to
				on site ponds. Besides being two completely different systems, upstream brook locations would be subjected to different potential sources of contamination than onsite ponds. Please delete this statement
177	4.9.3	104	1.	and similar ones throughout the document.
				The statement is made that skeet shooting over the ponds is a potential source of PAHs and lead. Please provide evidence or delete this statement. See previous comments regarding skeet shooting over
178	4.9.3	104	1	ponds.
179	4.9.3	104	1	Please remove comparison of pond sediments to upstream brook sediments, as they have different sources and aren't comparable.
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				It is noted that risks are unlikely since tadpoles were abundant at many of the sampling locations. This statement should be clarified as the presence of an organism does not necessarily provide any
				conclusive information regarding potential risk. This does not account for potential risks to species which may be more sensitive than tadpoles. This issue was raised in the review of the BERA. In the
				discussion of piscivorous birds and mammals it is stated that there is no risk to piscivorous birds. This statement should be reworded to indicate that there are "no unacceptable risks" as was stated in the
				BERA. Additionally, this discussion should include what may be causing the potential risk to the piscivorous mammals. The conclusions of no potential risk to, herbivorous, insectivorous, and carnivorous
180	5.2.2	107	2	birds and mammals should be changed to "no unacceptable risks".
				"An HI of less than one indicates that the adverse noncarcinogenic health effects are not likely to occur from exposure to the constituents that were considered in the assessment." Revise to include, "or
181	5.1.5	111	1	equal to"
				"An HI of greater than one does not imply the presence of significant risks, but rather that additional evaluation is required to adequately characterize the level of risk (CDM, 2014). Revise to read, "but
182	5.1.6	111	1	rather indicates that there is a potential for non-cancer health effects to occur, and the potential increases as the HI exceeds one."
183	5.1.6	115	Table	Revise the table to include the lead concentrations used as an input to the model.
				Suggest revising the next to last sentence as follows: "Overall, carcinogenic ELCRs and non-carcinogenic HIs presented in this BHHRA are based upon conservative assumptions that are intended to be
				protective of human health by ensuring that site risks are not underestimated. Therefore, overall confidence in this risk assessment is high."
184	5.1.7	116	3	
185	5.1.6	117	1	Please note the typographical error
186	5.2.1	117	3	The summary of the assessment endpoints only includes a list of receptors. It may be useful to include the full description of the assessment endpoints as presented in the BERA.
187	5.2.1	117	4	Please "spell out" the full assessment endpoints as they appear in the BERA.
187	3.2.1	117	<del>-</del>	It is true that literature-based uptake factors may be conservative, and in turn overestimate exposure; however, they may also
				underestimate exposure. It is recommended that the text be revised to read that there are many uncertainties when using literature-based values which may either lead to over-or underestimating
100	F 2.1	117	4	
188	5.2.1	117	4	exposure and risk.
				It is stated that the results of the BERA indicate that exposures to COPECs in the environmental media at the Site do not pose an ecological concern for most of the evaluated receptors and that
				there is a low potential risk for short-tailed shrews and American robin. However, this statement may not be accurate. For example, in Section 5.2.2 BERA Results it is noted that there were potential risks
4.5-			_	to benthic invertebrates found. Therefore, it may be more appropriate to indicate that for most of the ecological receptors there were no unacceptable risks found.
189	5.2.3	118	2	
				The text says risks to amphibians and reptiles are unlikely because tadpoles were abundant at sample locations. The presence of tadpoles doesn't necessarily mean risks are unlikely. The text should be
190	5.2.2	119	2	revised similar to the discussion in the final BERA.
				The text indicates that there was potential for risk to piscivorous mammals, but does not say from what. Please revise the text to be consistent with other paragraphs summarizing model receptor results
191	5.2.2	119	5	and note the risk driver(s).
192	5.2.3	121	2	Suggest revising the text to read "there is potential risk to verminorous mammals and birds, based on the short-tailed shrew and American robin models."
				This section should specifically discuss the discharge point for the shallow water-bearing unit. It is only discussed in general terms in the third paragraph. The section also devotes a full paragraph to
				discussing the underlying clay aquitard but relatively little discussion of the shallow water bearing unit is provided. The conceptual model should expand the discussion of this unit because it is the primary
				pathway for contaminant migration in groundwater. The wide range of hydraulic conductivity estimates should be discussed in terms of formation material and continuity of more conductive sand beds.
				The discussion of saturated waste material should also indicate if the difference in depth to groundwater is a function of ground surface elevation or other waste characteristics and whether mounding of
193	6.1	122	1	groundwater, typical of landfill, has resulted in a radial groundwater flow pattern. This is a key factor when evaluating the impact of "upgradient" contamination on the Site, as discussed in section 6.2.2.2.
				There needs to be a discussion of groundwater/surface water interactions with regard to contaminant fate and transport. The only occurrences of discharge/recharge is the last paragraph of Section
194	6	122	1	6.2.2.2 and some discussion was presented in Section 3.4.2.2, but this needs to be applied to possible contaminant migration pathways.
				The last sentence "In areas where the waste material was observed to be saturated at the surface, saturation was likely from precipitation and/or overland flow." Is this meant to be true for the wetland
195	6.1	122	2	areas with waste at the surface too? Because that is a groundwater/surface water interaction, only indirectly driven by precipitation.
130			<u>-</u>	There is no discussion at all regarding the nature and extent of contamination in surface water or sediment, and little on soil. In general, the majority of this section focuses primarily on groundwater and
				groundwater transport and little on
				the nature and existing of the micals detected other than VOCs, CFCs, arsenic and lead in that media. There were some fairly high concentrations of lead and PCBs detected in soil and sediment. At a
196	6.2	122	5	minimum there should be a discussion to put into context the concentrations detected, similar to what was done for VOCs and CFCs in groundwater.
130	0.2	144	3	minimum unit a anomalia de anomalia de producti de concentrations defected, animar to what was done for your and cressing groundwater.
107	6221	133	3	This section and section is a supersection and section is supersected by a supersection and section and section and section is supersected by a supersection is supersection.
197	6.2.2.1	123	2	This section, and section a require revision to include analysis of the potential for constituents in soil to migrate to groundwater, not just comparisons to direct contact soil remediation standards.
198	6.2.2.2	124	3	The "potential sources upgradient" should be specifically discussed.
				In general, discussion of groundwater data from TWP's is omitted. This data is valuable and should be included in the summaries. For example, pg 125 paragraph 3 implies that benzene impacts at MW-3
				are localized because benzene was non-detect at downgradient MW-15. However, benzene was detected at downgradient GW-TWP-8 at similar levels to MW-3, and upgradient GW-TWP-5 and 7at lower
199	6.2.2.2	124	3	levels. The data from these wells needs to be included.
200	6.2.2.2	125	4	"Exceedances of GWQS at well MW-7 include indeno(1,2,3-cd)pyrene (one sampling event), 1,4- dioxane (one sampling event), and PCBs (two sampling events, both in 2015)." add "include"
				Because of the location of MW-7 and proximity of nearest wells (~1,000 feet), it is difficult to state that indeno{1,2,3-cd)pyrene is localized. Suggest rephrasing to say that impacts do not extend offsite in
201	6.2.2.2	126	1	this area.
				"As indicated above, groundwater and solute migration will occur in the more permeable sands and gravels and whereas the silt and clay materials will not transmit significant volumes of water or solutes
202	6.2.2.3	127	5	to any significant degree." add "whereas", remove "and" after gravels
				The text indicates that geochemical conditions can be either aerobic or anaerobic and what the fate of constituents like benzene could be. At this point the conceptual model should indicate what the
				conclusions are from the data collected to date. DO and ORP measurements from groundwater samples should give an idea of these conditions and a more definite statement should be made concerning
203	6.2.2.3	128	1	the benzene concentrations at MW-3. This should also be the case in the last paragraph on page 129 where redox controlled metals area discussed.
				The text suggests that concentrations of lead and other metals detected in soil samples may be naturally occurring. Although such a statement may have some merit, it is unlikely that the concentrations of
204	6.3	131	2	lead and others are naturally occurring especially given that surficial soil is intermixed with refuse and debris which most likely is the source of metals detected.
			_	This paragraph states that the overburden aquifer is in a thin, sandy and silty material that extends to 20 to 25 feet bgs. Most of the boring logs, however, indicate a shallower depth (~15 feet) for this
205	6.3	131	3	interval.
200	0.5	131	,	process.

206	6.3	131	4	Please see comment on Section 4.6.3 about increasing the number of impacted groundwater areas.
207	6.4	133	1	Additional justification should be provided for the offsite shooting range as a potential source of lead when the shooting range to the north of the landfill does not appear to be.
				It is concluded that contaminants in the onsite ponds are similar to upgradient concentrations in Loantaka Brook and Black Brook. However, according to page 14 in Attachment J, several contaminants
				(barium, cadmium, calcium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, potassium, selenium, silver, sodium, vanadium, zinc, naphthalene and acetone) in the onsite ponds are no
208	7	134	1	consistent with background concentrations. Therefore, this conclusion should be clarified.
				Fifth bullet - More detail should be provided with regard to the Site impact on the "soil beneath" the landfill. It is not clear what type of soil this refers to. Where there is groundwater contamination, the
209	7	134	2	fate and transport section indicates that contaminants should be adsorbing to soil.
				General Comments on Figures – Please review each figure for the clarity of presentation. Some examples of issues with figures are:
				a. Ball field and shooting range should be labeled on figures, especially data figures.
				b. Figure 2-4 – there appears to be an unlabeled soil sample at MW-18.
				c. On Figure 3-3 it appears that basal colluvium and stream terrace deposits are given the same color.
				d. Attachment A Aerial photos – inset figures are missing (6, 8, 10, 12, 14). Figures 1 and 2 also missing.
				e. Label landscape areas on figures, outline which samples are referenced for each area.
				f. Typically contaminant data are provided in cross section, for vertical delineation. This could be provided for specific areas were deeper soil samples were collected.
210	Figures	N/A	N/A	
211	Attachment 1	N/A	N/A	Exhibit C and B-3A use for cis and trans chlordane; summary table in Attachment I uses alpha and gamma chlordane; please use terminology consistent with report and tables.
				a. On Appendix B-4C change 1,4-dioxane interim groundwater criterion to 0.4 ppb.
				b. 1,1,2-Trichloro-1,2,2-trifluoroethane interim specific groundwater criterion is 20,000 ppb.
				c. No VI screening levels included or tap water RSLs are provided, though headings are included on the table.
				d. Appendix B-6E has no standards or criteria whatsoever, only background threshold values.
212	Appendix B	N/A	N/A	